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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,750	11/09/2001	Michael G.L. Dorling	1084-011957	4182

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EXAMINER

MAHONEY, CHRISTOPHER E

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,750

Applicant(s)

MICHAEL DORLING

Examiner

Christopher E Mahoney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-26 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1 ☐ Certified copies of the priority documents have been received.
2 ☐ Certified copies of the priority documents have been received in Application No. ____.
3 ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Preliminary Matters

The Office Action mailed December 20, 2002 relied on references which had filing dates after the priority date of the present application. This present Office Action relies on references which have application dates prior to the priority date of the present application. The applicant's period for response is reset to three months from the mailing date of this Office Action.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 19-20, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is a lack of antecedent basis for the "said layer" recited in claim 8.

It is unclear in claim 25 if the discrete bodies are elongated in one direction is being recited positively or if they just may (preferentially) be in one direction.

Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that they fail to point out what is included or excluded by the claim language. This claim is an

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omnibus type claim. Furthermore, the applicant is reminded that the current application is for a utility patent. As such the claims should not reference the drawings as in a design patent.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-2, 6-7, 9-10, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Watanabe (U.S. Patent No. 6,261,402). Watanabe teaches a screen comprising a primary matrix 3 of a first transparent material, a first quantity of discrete bodies 2 of a second material having a different refractive index than the matrix, and a second quantity of discrete bodies 3a having a light absorbing or filtering property dispersed in the matrix. The applicant is directed to review figure 28, the abstract, as well as col. 11, lines 7-13, and claim 4. Regarding claim 2, the matrix recited in claim 2 may be the same as the primary matrix. Regarding claims 19-20, Watanabe discloses a projection screen and method of making *substantially* as described and recited in the claims.

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Claims 1, 11-12, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Marks (U.S. Patent No. 3,679,451). Marks teaches a screen comprising a primary matrix 5 of a first transparent material, a first quantity of discrete bodies 8, 9 of a second material having a different refractive index than the matrix, and a second quantity of discrete bodies 10 having a light absorbing or filtering property dispersed in the matrix. The applicant is directed to review figures 1-3, as well as col. 4, lines 33-75. Col. 4, lines 61-69 teaches that the particles may be elongated and asymmetric.

Claims 6-8 and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitani (U.S. Patent No. 5,815,313). Mitani teaches a projection screen comprising substantially spherical discrete bodies 8 of a first material in a matrix of a second material 9. As can be seen by the light paths in figure 10, the indices of refraction between 8 and 9 are different. Said matrix 9 may be a light filtering binder of lesser transparency (col. 3, lines 38-49, col. 8, lines 43-46) than said bodies. The thickness of the layer corresponds substantially with the mean diameter of said bodies (figs. 3, 10, col. 7, lines 14-16, and claim 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Watanabe (U.S. Patent No. 6,261,402) in view of Altman (U.S.

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Patent No. 3,552,822). Watanabe already teaches carbon toner in a matrix (i.e. cellulose acetate) but does not state explicitly that this is a dye. Altman teaches that particulate carbon in a matrix (col. 2, lines 46-48) is a black dye (col. 1, line 71). Alternatively, Altman teaches that a black dye is an art known equivalent to particulate carbon. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Altman for the purpose of replacing one known light absorbing medium for another and utilizing readily available materials.

Claims 2-3, 9-10 and 21 are rejected under 35 U.S.C. 103(a) as obvious over Marks (U.S. Patent No. 3,679,451) in view of JP 07077681. Marks teaches the salient features of the claimed invention except for the bodies of the second quantity comprising a matrix of transparent material incorporating light absorbing particles or dye. JP 07077681 teaches in figure 1 that it was known to utilize bodies 12 comprising a matrix of transparent material incorporating light absorbing particles or dye 8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by JP 07077681 for the purpose of producing an electrochromic display and/or improving contrast.

Claims 13 and 15-16 are rejected under 35 U.S.C. 103(a) as obvious over Marks (U.S. Patent No. 3,679,451) in view of Zeira (EP 0843203). Marks teaches the salient features of the claimed invention except for extrusion of a compound comprising different thermoplastics instead of allowing the compound to dry. Zeira teaches (page 5, line 58 to page 6, line 20) the manufacturing of a light diffusing screen by extruding a compound through a slot. The compound comprises a mixture of the components of the screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught

by Zeira for the purpose of providing an alternative method of manufacture and minimizing process steps.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as obvious over Marks (U.S. Patent No. 3,679,451) in view of Stevens (GB 401,700). Marks teaches the salient features of the claimed invention except for mixing the materials in a semi-fluid to viscous condition then spreading over a suitable support or mould and allowed to set. Stevens teaches that it was known to mix the materials in a semi-fluid to viscous condition then spreading over a suitable support or mould and allowed to set. The applicant is directed to review page 2, lines 46-107. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Stevens for the purpose of ensuring a homogenous mixture.

Claims 14 and 26 are rejected under 35 U.S.C. 103(a) as obvious over Mitani (U.S. Patent No. 5,815,313) in view of Zeira (EP 0843203). Mitani teaches the salient features of the claimed invention except for extrusion of a compound comprising different thermoplastics instead of allowing the compound to dry. Zeira teaches (page 5, line 58 to page 6, line 20) the manufacturing of a light diffusing screen by extruding a compound through a slot. The compound comprises a mixture of the components of the screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Zeira for the purpose of providing an alternative method of manufacture and minimizing process steps.

Claim 25 is rejected under 35 U.S.C. 103(a) as obvious over Mitani (U.S. Patent No. 5,815,313) in view of Marks (U.S. Patent No. 3,679,451). Mitani teaches the salient features of the claimed invention except for the discrete bodies elongated preferentially in one direction in

the plane of the screen whereby the screen has asymmetric light diffusing properties. Marks teaches in col. 2, lines 67-71 that it was known to provide discrete bodies elongated preferentially in one direction in the plane of the screen whereby the screen has asymmetric light diffusing properties. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features as taught by Marks for the purpose of increased image light transmission with decreased reflected image visibility and brightness.

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E Mahoney whose telephone number is (703) 305-3475. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



CHRISTOPHER MAHONEY
PRIMARY EXAMINER